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“GENUINE OPEN HEARTH IRON”

**Rust Resisting
Sheet Metal Products**

**Newport Rolling Mill Co.
Newport, Ky. U.S.A.**

SOLE PRODUCERS: **INSTITUTE**
PHILADELPHIA



"GENUINE"

"OPEN HEARTH IRON"

Best Resisting

Sheet Metal Products



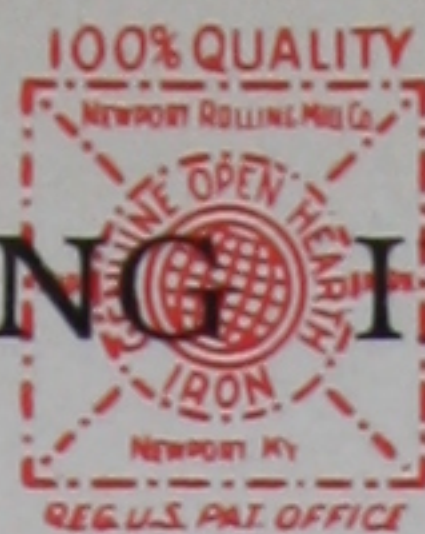
Newport Rolling Mill Co.

Newport, KY U.S.A.

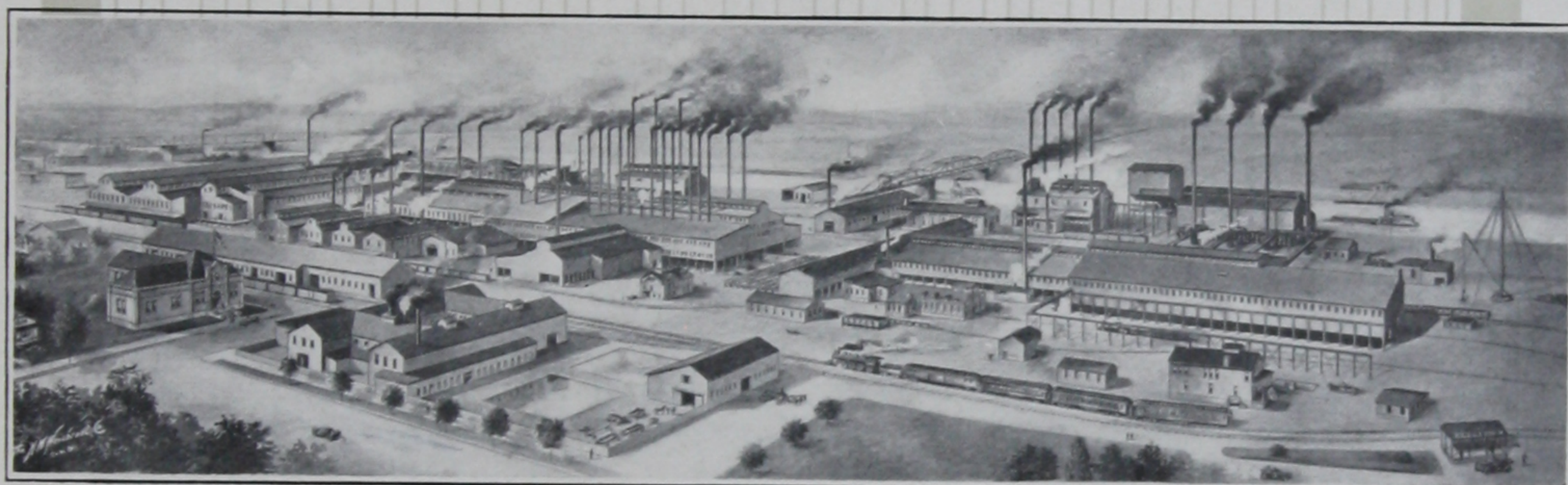
RESEARCH INSTITUTE

PHILADELPHIA

THE RUST-RESISTING IRON OF THE AGE



**NEWPORT
ROLLING MILL CO.,
NEWPORT, KY.**



THE HOME OF

**“GENUINE OPEN-HEARTH”
IRON**

10 88-B13561 TCF

"GENUINE OPEN HEARTH IRON"



"GENUINE OPEN HEARTH"

100% QUALITY



Rust-Resisting
Sheet Metal Building
Material

A Pure Homogeneous and
Dense Metal

Soft, Pliable and Ductile

"GENUINE OPEN HEARTH IRON" meets the demand for a Rust-Resisting Sheet Metal for Roofing, Siding, Eaves Trough, Conductor Pipe, Roof Gutter, Cornices, Sky-Lights, Ventilators, Tanks, Stacks, Metal Window Frames, Metal Doors, Corrugated Culverts, Corrugated Awning and Arches, Ridge Roll, Flashings and for all exposed Sheet Metal Work.

You are doubtless aware that the ordinary Iron and Steel of today is inferior in durability and lasting qualities to the old-fashioned product made twenty, or even ten years ago, and very inferior to the old-fashioned irons or Puddled Iron.

This is the result of the Rolling Mills and Steel Plants of today operating with only one end in view—that of pro-

THE RUST-RESISTING IRON OF THE AGE



ducing large tonnage, thereby cutting down their costs, also the quality of their material.

In the quick tonnage producing process of today, the material cannot be given the proper attention or proper heat treatments to keep up the quality.

The Steel of today is being rushed through the Mill at such great speed that it is being tortured instead of being improved in quality by the rolling process.

There have been many complaints regarding lasting qualities of the Iron or Steel Product made in the last few years, same having been outlasted by the old-fashioned irons made in previous years.

For many years, we operated a large number of puddling furnaces and a forge or muck bar iron mill, for the manufacture of Puddled or Reworked Muck Bar Iron or old-fashioned Iron. This material being made by a slow process, withstood rust and corrosion fairly well.

Keeping abreast with the times and in the line of progression, open hearth furnaces were erected by our Company, which enabled us to produce "**GENUINE OPEN HEARTH IRON**" — a product which in Rust-Resisting and Lasting qualities, is far superior to any product we have ever manufactured heretofore; and our works having been in operation for over fifty years, we have made all grades of Sheets, namely: Puddled Iron, Charcoal Iron, Bessemer Steel, Semi-Steel and Open Hearth Steel. We know the relative values of each, and also know that there is a demand for a superior Rust-Resisting Sheet; and with this in view we placed on the market our "**GENUINE OPEN HEARTH IRON**" Rust-Resisting Sheets, which are taking the place of many so-called Irons and Iron Sheets that are not giving the lasting qualities desired.

"**GENUINE OPEN HEARTH IRON**" compares favorably in purity, in fact, we guarantee it to contain less impurities than any of the old-fashioned Irons. It is worked slowly through the manufacturing process, the time being nearly twice as long as is required to make ordinary steel; and for the fact that the rolling and manufacturing process is slower

"GENUINE OPEN HEARTH IRON"



than on any other materials, **"GENUINE OPEN HEARTH IRON"** in its manufacture is not strained or tortured.

"GENUINE OPEN HEARTH IRON" contains of impurities—Carbon, Manganese, Sulphur, Phosphorus and Silicon, a total of only .035 of 1% to .125 of 1%, or approximately not exceeding $\frac{1}{8}$ of 1%, which is conclusive evidence that this Product contains less impurities that are rust and corrosion accelerators than any commercial product offered to the trade.

Steel contains ten to twenty times the above amount of impurities. Metallurgical Authorities declare that impurities in Iron or Steel, and to a great extent in quickly or poorly made Iron or Steel, cause (when in the presence of moisture) an electrolytic action that hastens and increases rust and corrosion.

"GENUINE OPEN HEARTH IRON" being practically a pure Iron and receiving the necessary careful heat treatments, makes it a dense and homogeneous Iron, far more resistant to rust, and a metal not subject to deep pitting or rusting like Steel.

"GENUINE OPEN HEARTH IRON" contains a smaller percentage of Manganese than any other iron manufactured, and this exceedingly small percentage of Manganese in **"GENUINE OPEN HEARTH IRON"** has no influence on the pure iron copper alloy, of which this material is composed.

"GENUINE OPEN HEARTH IRON" must not be confused with copper bearing steel, as this latter product is nothing more than ordinary steel containing a high percentage of impurities, particularly Manganese, but in which is incorporated about two-tenths per cent. (.2%) copper. While copper bearing steel resists the action of Sulphuric Acid, it is in no way superior to ordinary steel without copper, as the copper iron alloy in this ordinary copper bearing steel is rendered inefficient in resisting rust by the presence of Manganese in so large a quantity, some of which is bound to segregate from the alloy and cause many spots to develop in the sheets, which would be centers of corrosion.

In ordinary copper bearing steel, Manganese Sulphide, separates from the mother alloy. This separated Manganese

THE RUST-RESISTING IRON OF THE AGE



Sulphide, Oxide or Silicate is what contributes to the rapid rusting of steel.

The Manganese, which is perfectly alloyed with the iron is not an accelerator of corrosion, and because of the fact that **"GENUINE OPEN HEARTH IRON"** is practically free from Manganese and therefore free from Manganese segregations, the pure iron copper alloy is able to go about its work of resisting corrosion without the influence of Manganese to destroy it.

"GENUINE OPEN HEARTH IRON" is an alloy of pure iron and pure copper, free from all the other elements (principally Manganese) which are accelerators of corrosion.

Laboratory and actual service tests have proven that **"GENUINE OPEN HEARTH IRON"** is absolutely the best Rust-Resisting sheet metal on the market.

It is a serious mistake to classify all so-called "Irons" with **"GENUINE OPEN HEARTH IRON."** The purchaser who fails to make the distinction between the **"GENUINE OPEN HEARTH IRON"** and the many Irons lacking its vital points of Superiority as to Rust-Resisting Qualities will find later that a serious mistake has been made that will prove costly to rectify.

"GENUINE OPEN HEARTH IRON" Sheets, both Black and Galvanized, have attained Remarkable Celebrity with the most Exacting Buyers, and the name "IRON" is sometimes loosely and incorrectly applied to other materials seeking to accomplish similar results.

THIS →
TRADE MARK
STENCILED ON
EVERY SHEET



NONE GENUINE
WITHOUT IT—
ACCEPT NO
SUBSTITUTES

"GENUINE OPEN HEARTH IRON"



The Test That Tells The Tale

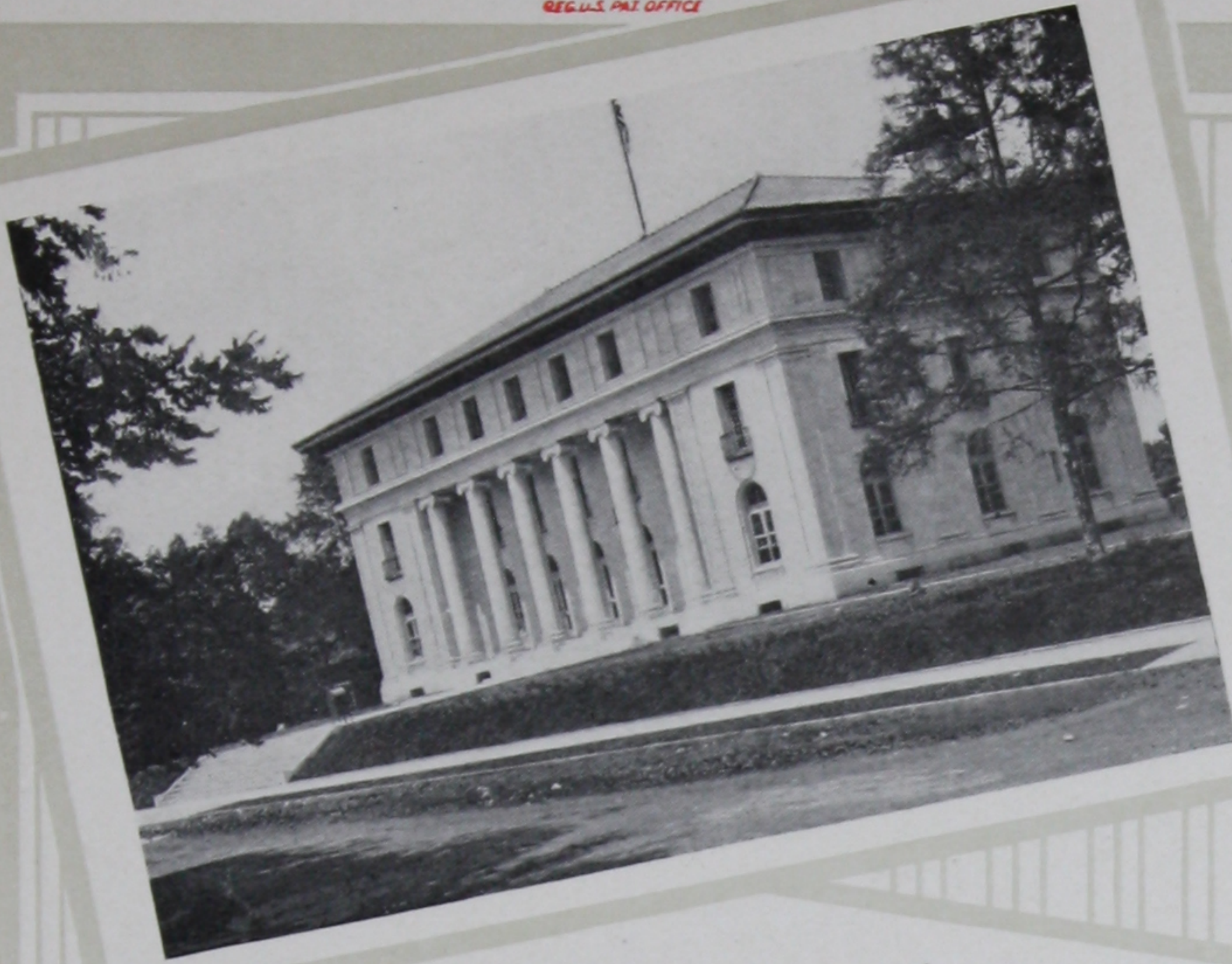
THE SERVICE TEST

The illustrations shown on the following pages are actual installations of Sheet Metal Work on which

"GENUINE OPEN-HEARTH"

RUST-RESISTING SHEETS was specified and used.

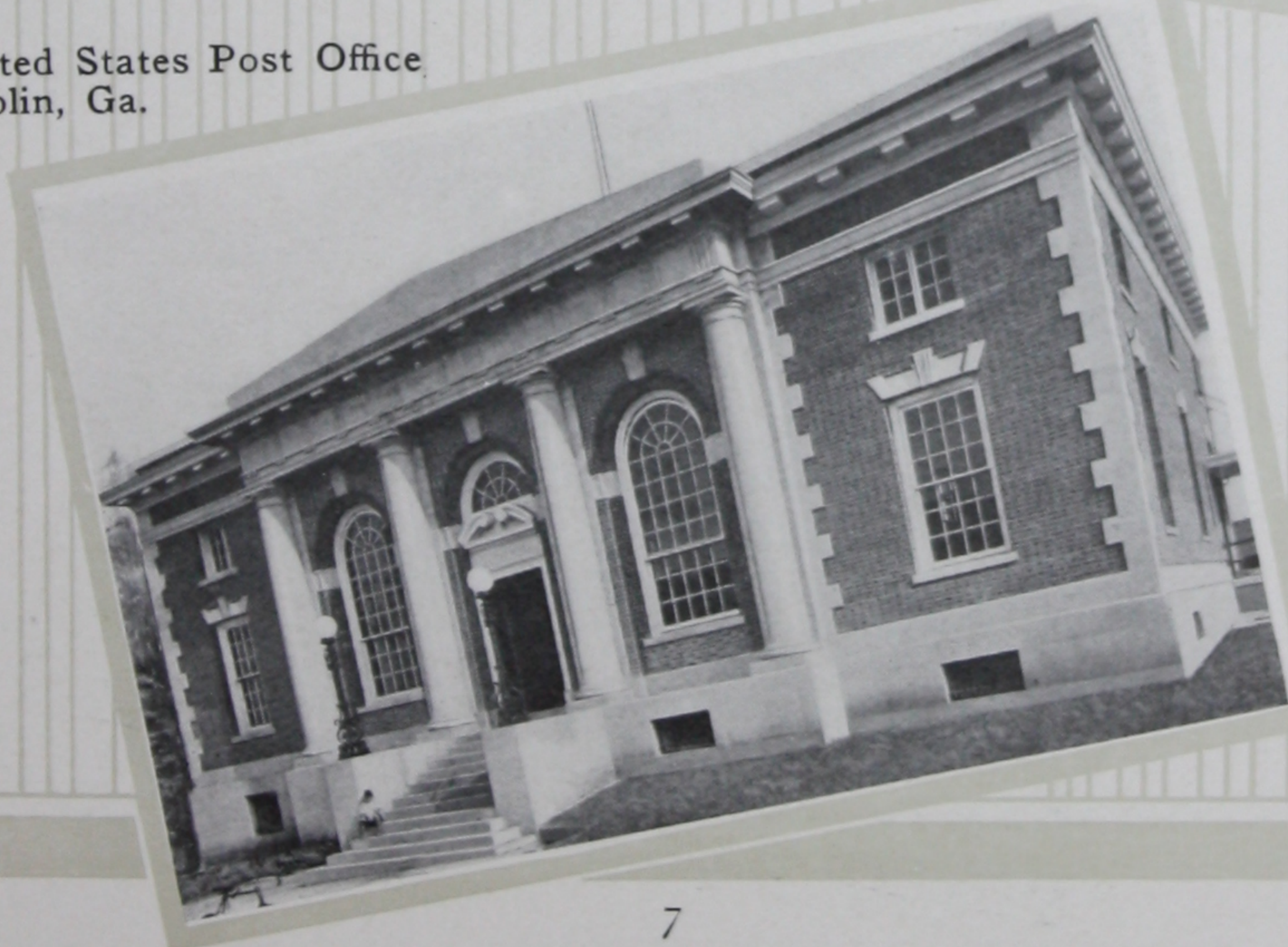
THE RUST-RESISTING IRON OF THE AGE



United States
Post Office,
Florence,
Ala.



United States
Post Office,
Orangeburg,
S. C.



United States Post Office
Dublin, Ga.

"GENUINE OPEN HEARTH IRON"



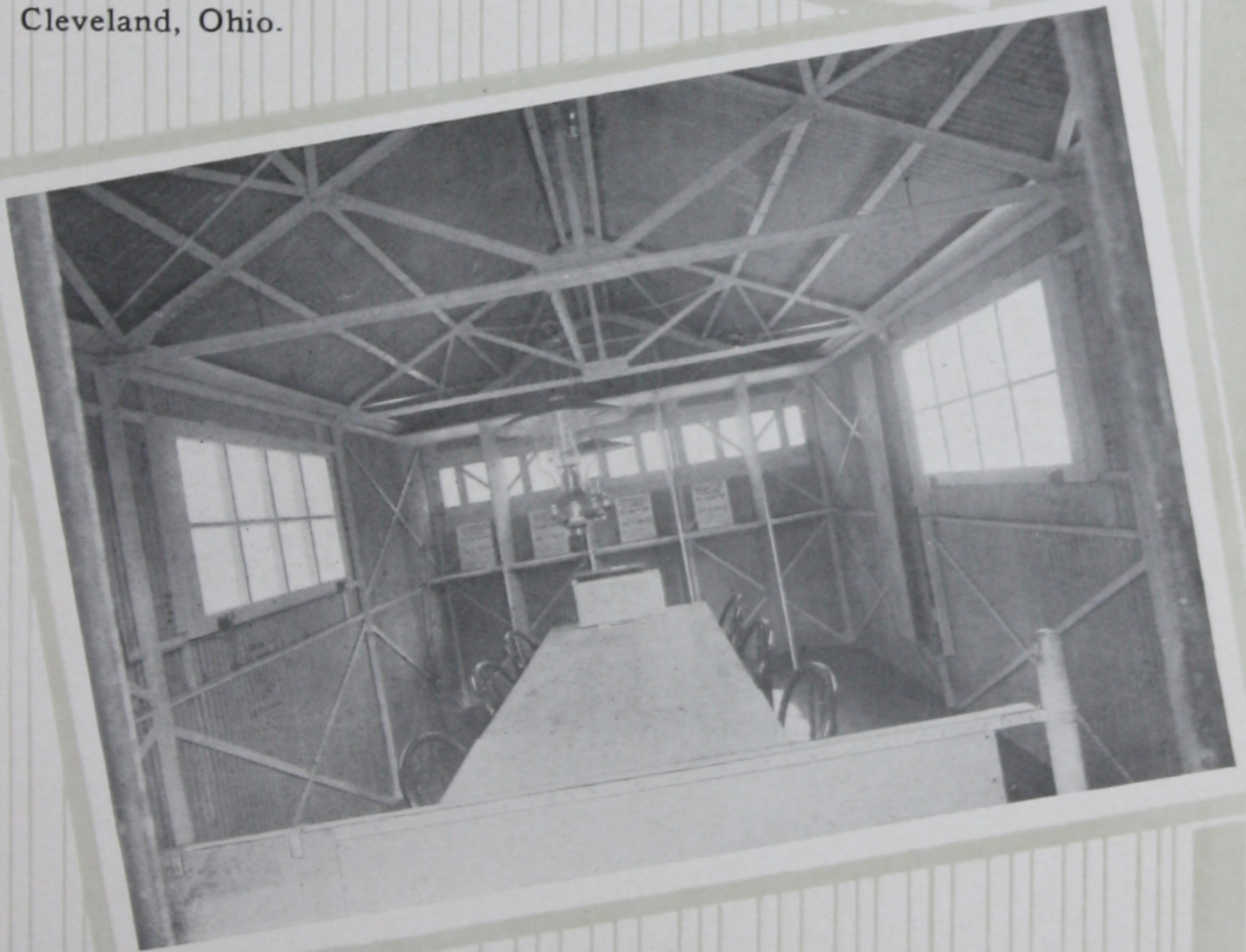
Plant of
The Charles Boldt Co.,
Glass Manufacturers,
Cincinnati, O.



THE RUST-RESISTING IRON OF THE AGE



Voting Booths,
Cleveland, Ohio.





THE BEST BY ACTUAL TEST COMPARATIVE CORROSION TEST

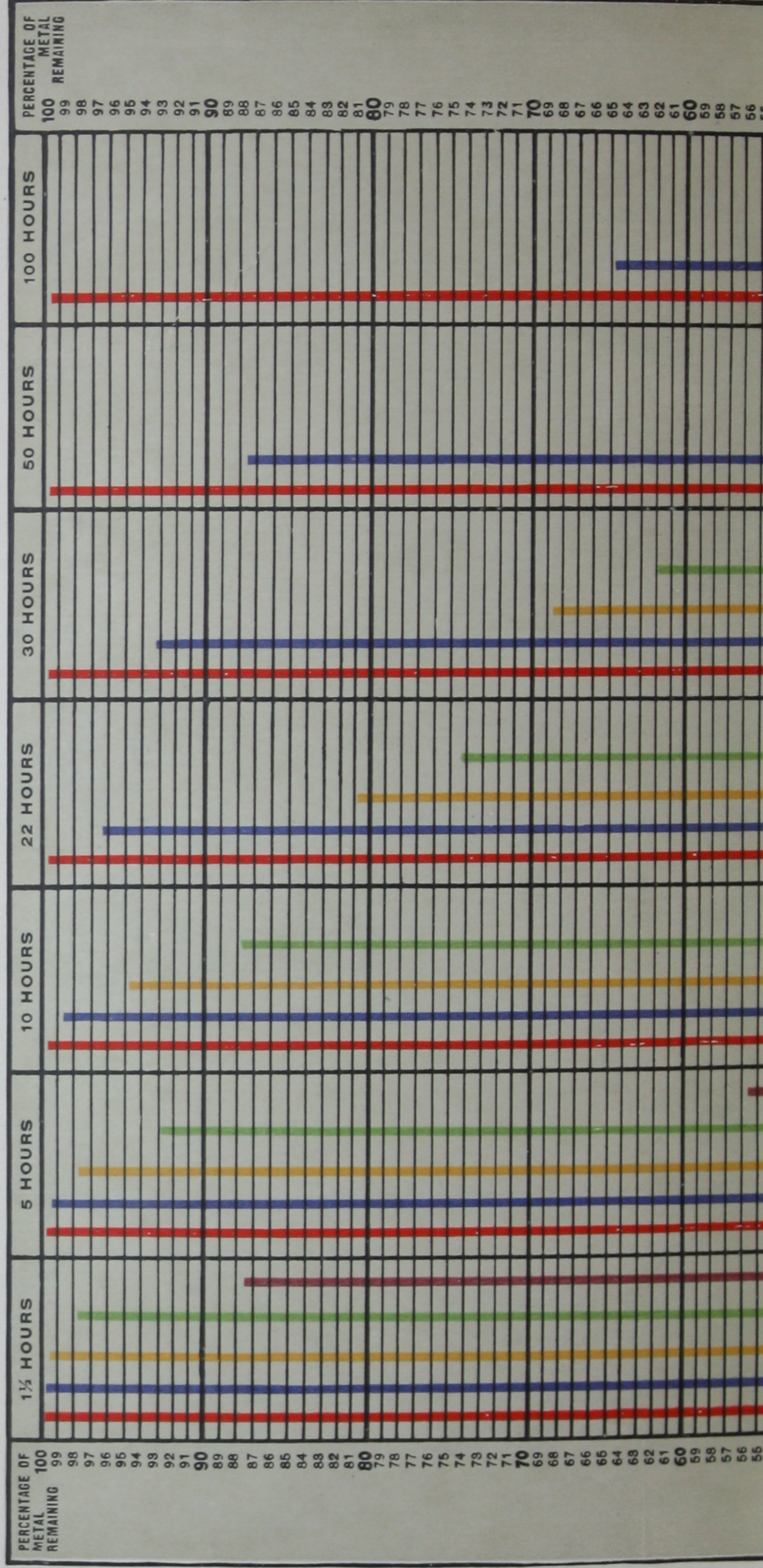


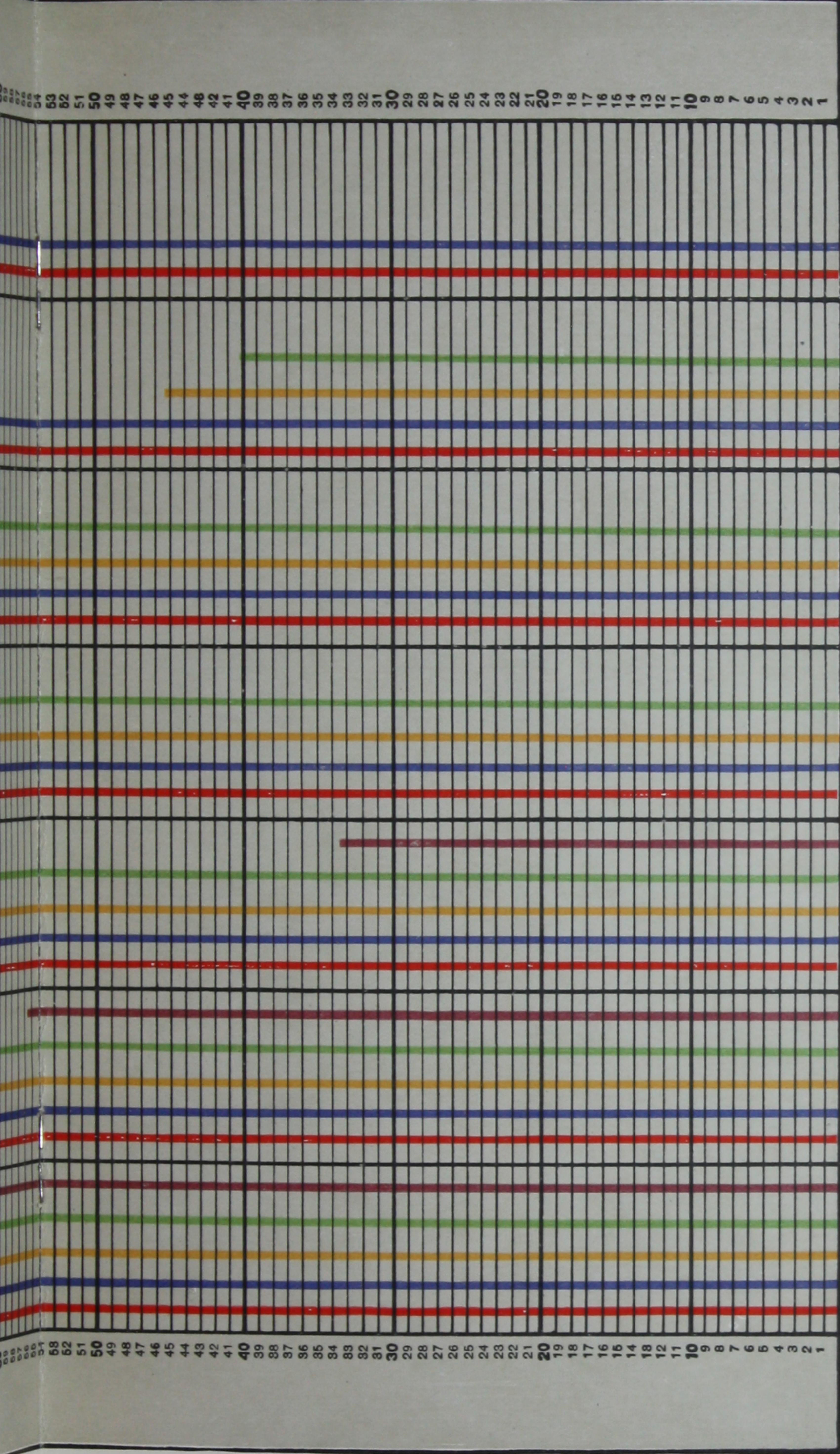
"GENUINE OPEN HEARTH IRON"

CHARCOAL IRON - OPEN HEARTH STEEL

BESSEMER STEEL - REWORKED MUCK BAR OR PUDDLED IRON

All samples were tested in a Sulphuric Acid solution of same strength, namely 25% BY VOLUME, EQUIVALENT TO 38% BY WEIGHT. Time of tests shown on chart below. The percentage of weight remaining after test, is represented in **"Genuine Open Hearth Iron"** by **Charcoal Iron** **Open Hearth Steel** **Bessemer Steel** **Reworked Muck Bar or Puddled Iron**





"Genuine Open Hearth Iron" Lost
Charcoal Iron Lost
Open Hearth Steel Lost
Bessemer Steel Lost
Reworked Muck Bar Iron Lost

	.03% in 1 1/2 Hours	.07% in 5 Hours	.11% in 10 Hours	.17% in 22 Hours	.21% in 30 Hours	.37% in 50 Hours	.86% in 100 Hours
	.22%	.95%	1.54%	3.96%	6.98%	12.75%	35.76%
	.49%	2.06%	5.52%	19.22%	31.86%	54.52%	Entirely dissolved in 99 hours and 5 minutes
	2.17%	7.08%	12.09%	25.98%	38.05%	59.92%	Entirely dissolved 100 " 20 "
	12.70%	44.48%	66.98%	Entirely dissolved in 19 hours and 20 minutes			



State of Kentucky, Campbell County, ss.

The affiant, Wm. R. Fleming, Chemist, states the results shown on the above chart are the results of an accelerated corrosion test made by him. That all samples used were of same size and weight and were all prepared and treated in the test in the same manner and immersed in sulphuric acid of the same strength. That new acid was used every ten hours, which made the test more severe than if same acid had been used for entire test.

Subscribed and sworn to before me by
Wm. R. Fleming this 8th day of July, 1910.

Frank V. Benton
Notary Public, Campbell County, Ky

Wm. R. Fleming, B.Sc.M.Sc.

"GENUINE OPEN HEARTH IRON"



"Genuine Open Hearth Iron"
Galvanized Corrugated
Arches
Used for Floors
On Bridge at
Livingston, Cal.



Galvanized Corrugated
"Genuine Open Hearth Iron"
Culvert

THE RUST-RESISTING IRON OF THE AGE

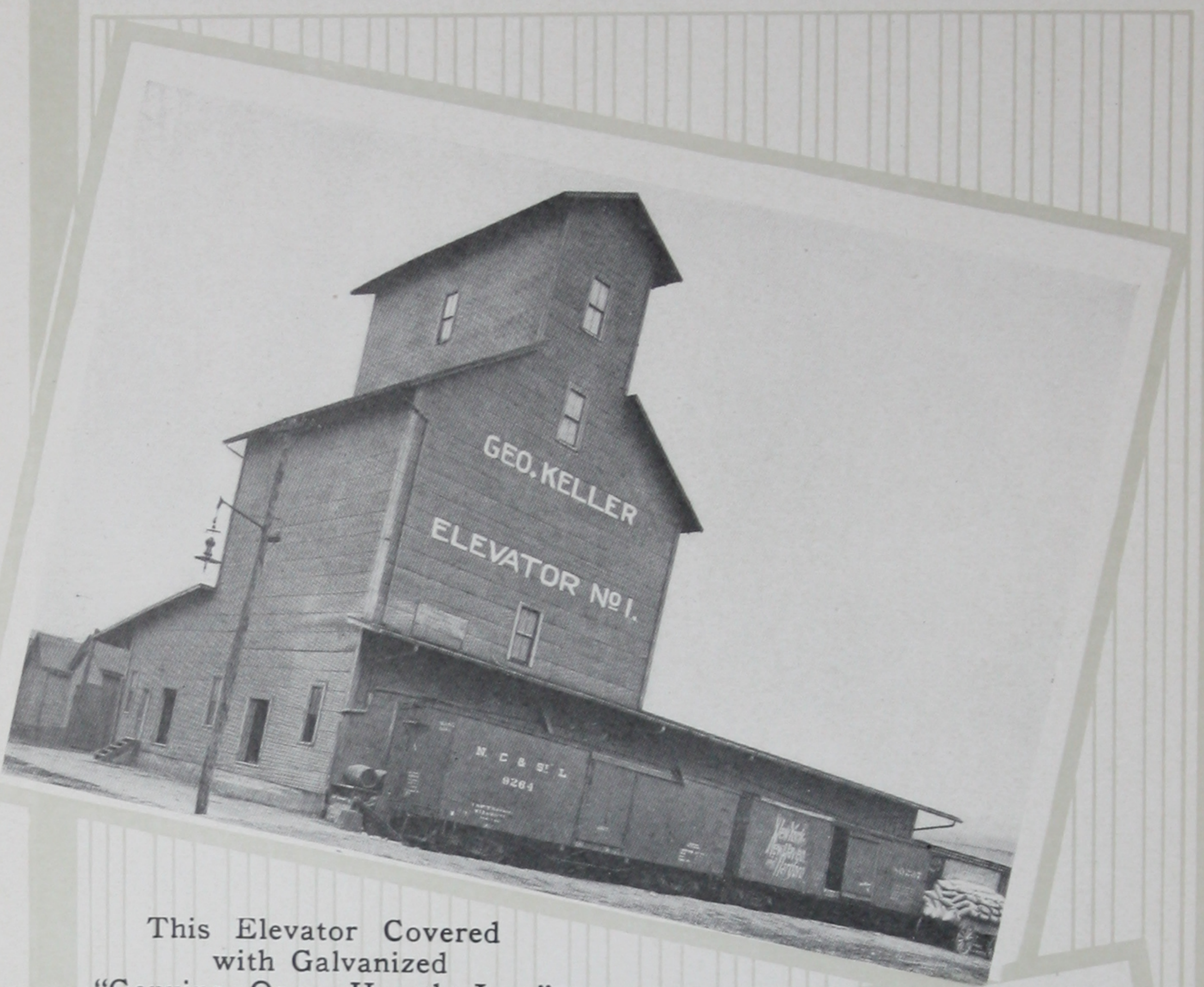


Redland Field,
Cincinnati Base Ball Park,
Cincinnati, Ohio.
All Louvres Made From
"Genuine Open Hearth Iron"



H. S. Koop & Co.,
Cincinnati, Ohio.
"Genuine Open Hearth Iron"
Used for all Cornice and Sheet Metal Work

“GENUINE OPEN HEARTH IRON”



This Elevator Covered
with Galvanized
“Genuine Open Hearth Iron”
Corrugated Sheets.



“Genuine Open Hearth Iron”
Used on this Building.

THE RUST-RESISTING IRON OF THE AGE



DEMAND THIS BRAND and see
that Every Sheet is stenciled with our
Registered Trade Mark.

100% QUALITY



NONE GENUINE WITHOUT IT
REFUSE SUBSTITUTES

"GENUINE OPEN-HEARTH" IRON

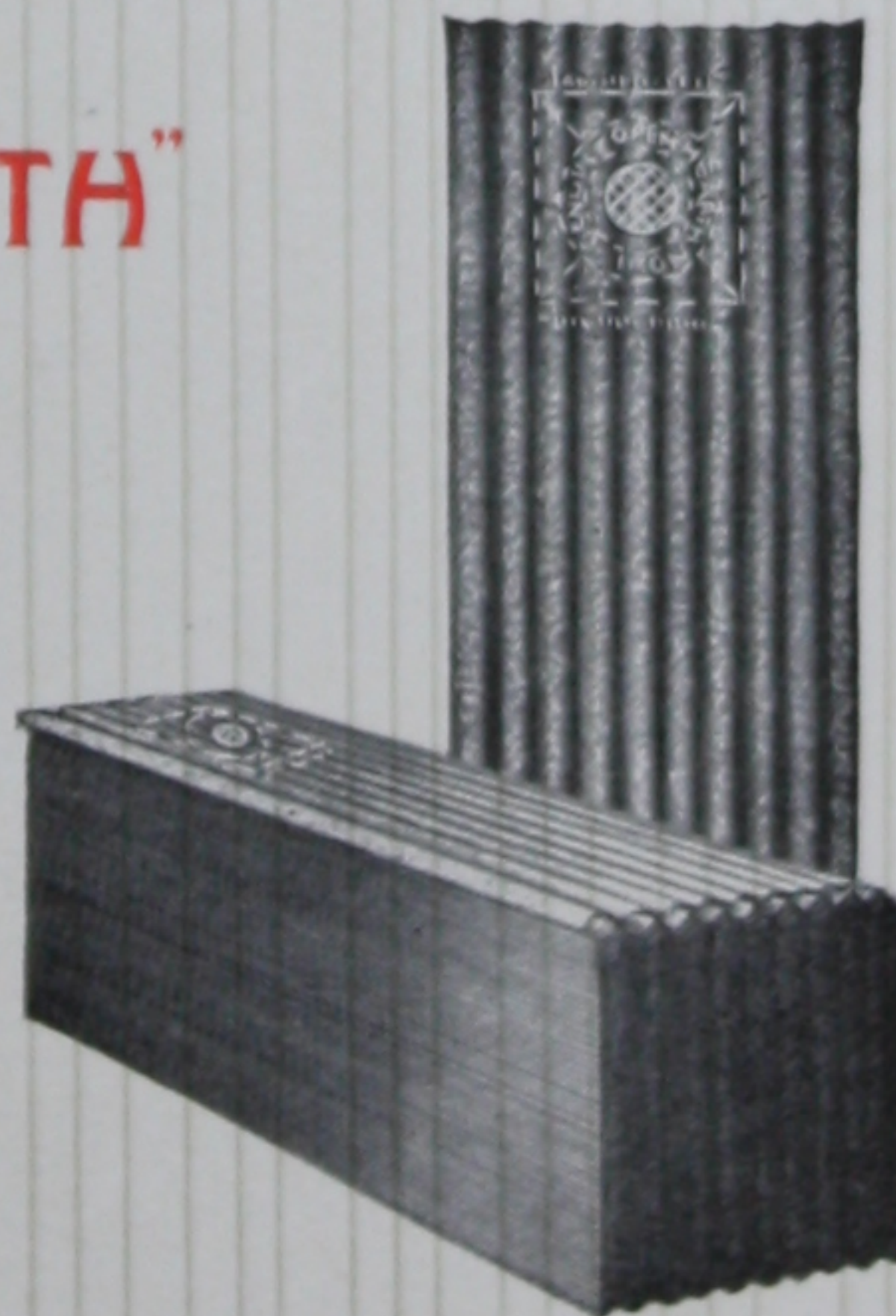
THESE FOUR WORDS ON YOUR SPECIFI-
CATIONS FOR SHEET METAL WORK WILL
INSURE YOUR obtaining a sheet metal that
is absolutely

100% Quality

IF the question of Lasting and Rust Resisting
Qualities of Sheet Metal decides what material you
will use, we know your Specifications will read—

"GENUINE OPEN-HEARTH" IRON

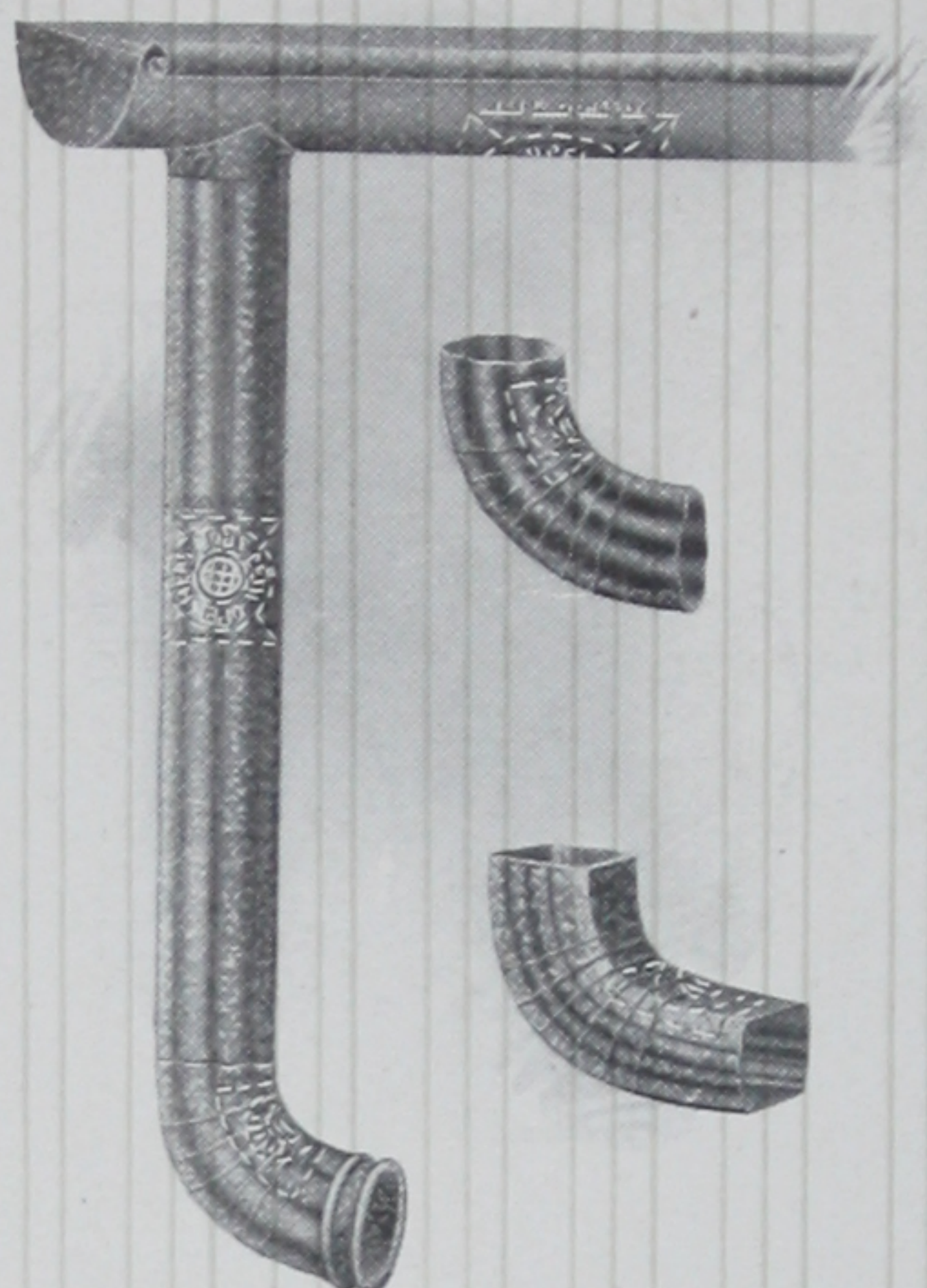
100% QUALITY MEANS
100% EFFICIENCY



"GENUINE OPEN HEARTH IRON"



USES FOR "GENUINE OPEN HEARTH IRON"



Roofing	Formed Valley
Siding	Conductor Pipe
Flashings	Eaves Trough
Louvres	Stand Pipes
Ice Cans	Smoke Stacks
Culverts	Brick Pallets
Elbows	Metal Windows
Shoes	Metal Doors
Mitres	Metal Shingles
Cut-offs	Refrigerators
Sky-Lights	Refrigerator Cars
Ventilators	Fence Posts
Tanks	Garbage Cans
Stoves	Coal Chutes
Flumes	Gas Holders
Furnaces	Metal Lath
Mine Cars	Ridge Roll
Arches	Cappings

The following are a few of the many styles of "Genuine Open Hearth Iron" formed products carried in stock for prompt shipment:—3" 2½" 2" 1¼" and 5/8"

Brick Siding	Corrugated Sheets	Shoes
Metal Shingles	Corrugated Culverts	Flashings
Metal Tiles	Corrugated Arches	Ventilators
Plain Ridge Roll	Corrugated Awnings	Eaves Trough
Cappings	Corrugated Ridge Roll	Elbows
Formed Valley	Weather Board Siding	Conductor Pipe
V Crimp Roofing	Rock Face Stone Siding	Mitres
Beaded Siding	Rock Face Brick Siding	Cut-offs
Cluster-Shingles	Roll and Cap Roofing	
	Plain Roll Roofing	
	Middle V Crimp Roofing	
	Pressed Standing Seam Roofing	
	Globe 5 Crimp Roofing	

100% QUALITY



Demand this Brand and see that every sheet is stenciled with our Registered Trade Mark—None Genuine without it.



12 Reasons Why

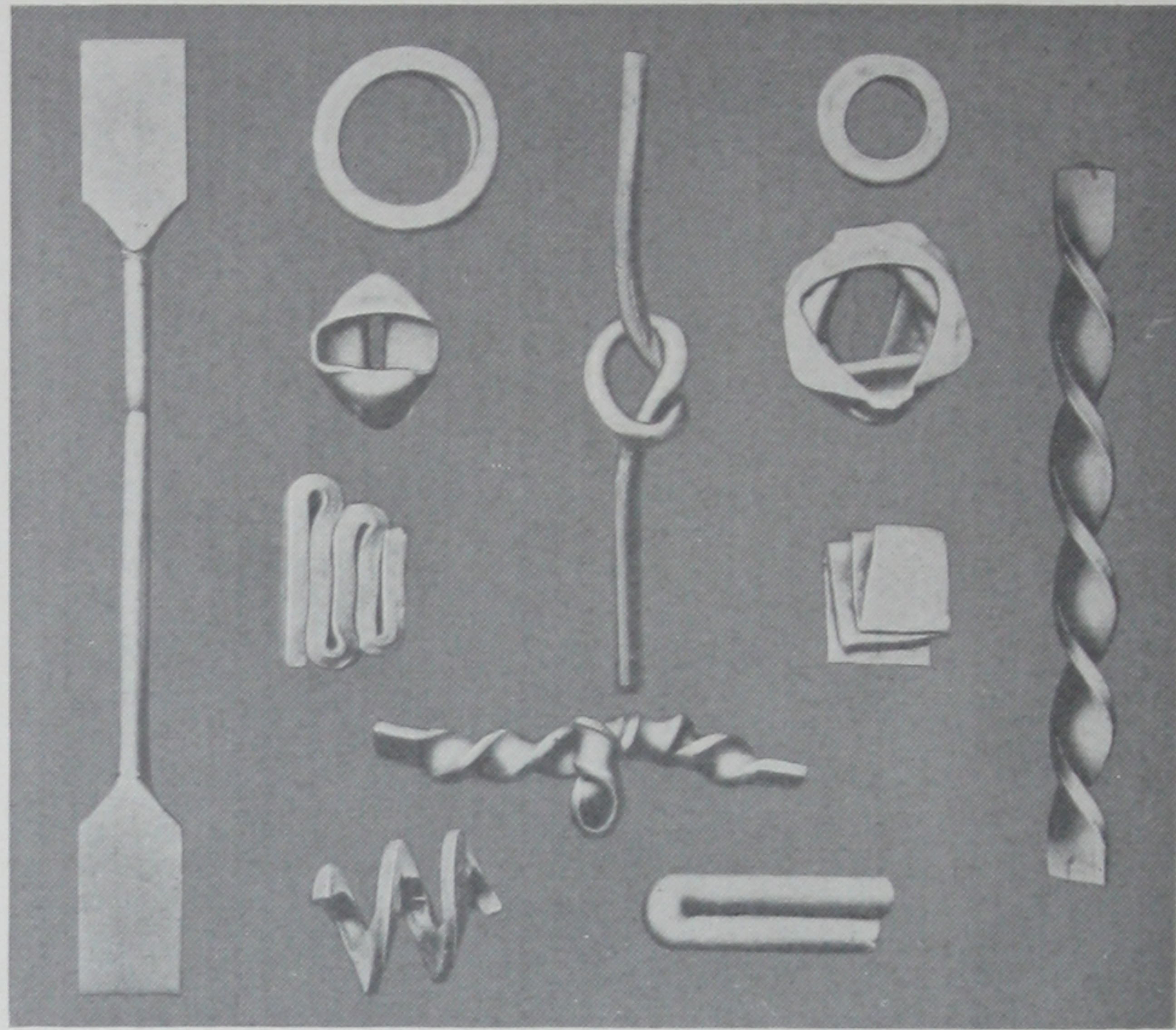
Every User or Prospective User of Sheet Metal Building Materials should investigate and learn of the Superior Rust-Resisting Qualities of

"GENUINE OPEN-HEARTH"

over other IRON and STEEL Sheet Metal Products

- 1—BECAUSE "Genuine Open Hearth Iron" contains of impurities, namely: Carbon, Manganese, Sulphur, Phosphorus and Silicon, a total of only .035 of 1% to .125 of 1%, or approximately not exceeding $\frac{1}{8}$ of 1%. Steel contains at least ten times this amount of impurities, and is consequently inferior in lasting qualities, as these impurities are dangerous rust and corrosion agents.
- 2—BECAUSE Lasting Qualities considered, makes the cost cheaper than any other sheet metal you can buy.
- 3—BECAUSE "Genuine Open Hearth Iron" Sheet Metal is more durable than Reworked Muck Bar Iron, Charcoal Iron, Steel and other Sheet Metal.
- 4—BECAUSE "Genuine Open Hearth Iron" is absolutely uniform in Quality, being manufactured from the highest grade of selected materials, assuring the desired results; that is—the Best Rust-Resisting Metal for any and all conditions.
- 5—BECAUSE "Genuine Open Hearth Iron" conforms to the theories of Noted Metallurgical Authorities as to what a superior rust-resisting sheet metal should be—A PURE IRON.
- 6—BECAUSE "Genuine Open Hearth Iron's" value as a Rust-Resisting Metal has been tested and approved by the leading Engineers, Architects, and the United States Government.
- 7—BECAUSE "Genuine Open Hearth Iron" Products mean economy and satisfaction.
- 8—BECAUSE if you specify and use "Genuine Open Hearth Iron" Sheet Metal, you will avoid replacing your Sheet Metal Work every few years.
- 9—BECAUSE "Genuine Open Hearth Iron" is sold entirely on its merits and in no other way.
- 10—BECAUSE "Genuine Open Hearth Iron" is manufactured by a firm, whose Reputation for Sterling Products has long been established.
- 11—BECAUSE it is a well-known fact that impurities in Iron and Steel hasten and aid corrosion. (See U. S. Dept. of Agriculture, Bulletin No. 239 and other Reports.) "Genuine Open Hearth Iron" contains less impurities or corrosion agents than other iron, and far less than any steel.
- 12—BECAUSE "Genuine Open Hearth Iron" is the Best by Any and Every Test—By Service Test, Purity, the Accelerated Corrosion Test, etc.

"GENUINE OPEN HEARTH IRON"



These photographs show
specimens of

"GENUINE OPEN-HEARTH"
IRON

Twisted and Bent Cold
Showing
Remarkable Ductility

100% QUALITY



“Genuine Open Hearth Iron”

Not Eventually—But Now!